Shared health Soins communs Manitoba	**A03 - HIGH ALERT MEDICATIONS**
	POLICIES & PROCEDURES
Version date: 2023-12-15	Effective Date: 2024-02-13 (0700)

NOTES

1. High-alert medications require additional safeguards including independent double-checks, specific storage instructions, and label requirements to enhance patient safety and reduce errors that may lead to the possibility of serious harm. The Shared Health Provincial Clinical Standard has been developed to promote the safe prescribing, labelling, packaging, storage, preparation, administration, and monitoring of high-alert medications.

   The clinical standard and high-alert medications list are applicable to all provincial clinical areas, including Emergency Response Services. Appendix A includes the medications on the Provincial High-Alert Medication list that are used by EMS during primary response and interfacility transfer.

2. Except during resuscitation[9], an **independent double-check** is mandatory when preparing and administering a high-alert medication, including a double-check of all calculations performed. The double check must always include visual (not verbal) verification.

   The paramedic who will be administering the high-alert medication must be one of the two individuals who perform the independent double-check.

3. If a paramedic is working alone, they must perform a **self-check** when preparing and administering a high-alert medication.

   If possible, they should perform another unrelated task between the initial calculations, medication preparation, and self-checking. This is referred to as a **time-out**.

4. During medication preparation, the double-check (or self-check) must include:
   - The correct medication and concentration
   - The correct volume of medication needed
   - The correct type and volume of diluent (if applicable)
   - The correct volume and concentration of the finished preparation

5. Infusions must be labelled with:
   - The drug name, dose, concentration, and volume
   - The diluent type and volume (if applicable)
   - The patient's name
   - The initials of both paramedics

6. During medication administration, the double-check (or self-check) must include:
   - The correct patient
   - The correct medication and concentration
   - The correct dose
   - The correct route of administration
   - The correct time (if applicable)

   In addition, the double-check (or self-check) of all intermittent and continuous infusions must also include:
   - The correct rate of administration

- The correct pump settings
- The correct administration set

7. Independent double-checks of infusions are required when:
   - Establishing the infusion
   - The rate or dose is changed
   - The infusion container is changed
8. The paramedic who prepared the medication and the paramedic who performed the double-check must both sign the patient care record (PCR).
9. During cardiac resuscitation, select medications do not require an independent double-check.
10. Certain medications require an independent double-check when given by all routes to pediatric patients.

REFERENCES
• **Provincial Clinical Standard** https://healthproviders.sharedhealthmb.ca/files/ham-standard.pdf • **Provincial High-Alert Medications List** https://healthproviders.sharedhealthmb.ca/files/ham-provincial-list.pdf

APPROVED BY	
	
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VERSION CHANGES (refer to X01 for change tracking)
• New

APPENDIX A: EMS HIGH-ALERT MEDICATIONS (HAM)		
MEDICATION / ROUTE	**PRIMARY RESPONSE**	**INTERFACILITY TRANSFER**
Acetylcysteine		√
Amiodarone (M14) [9]	√	√
Calcium chloride (M26) [9]	√	√
Calcium gluconate		√
Dextrose > 20% (M06.2)	√	√
Diltiazem IV / IO		√
Enoxaparin (M43)	√	
Epinephrine IV / IO (M05.2) [9]	√	√
Esmolol		√
Fentanyl (M03.2)	√	√
Fosphenytoin		√
Heparin		√
Hydromorphone [10]		√
Insulin IV / IO		√
Ketamine (M17) [10]	√	√
Labetalol		√
Lidocaine		√
Lorazepam IV / IO [10]		√
Magnesium sulfate (M24)	√	√
Metoprolol IV / IO		√
Midazolam (M07.1) [10]	√	√
Morphine IV / IO (M03.1) [10]	√	√
Nitroglycerin IV / IO (M21)	√	√

Oxytocin IV / IO (M16)	√	√
Phenytoin IV / IO	√	√
Potassium acetate		√
Potassium chloride		√
Potassium phosphate		√
Propofol [10]		√
Sodium acetate		√
Sodium bicarbonate (M18) [9]	√	√
Sodium chloride 3%		√
Sodium phosphate		√

9. Independent double-check not required during cardiac resuscitation
10. Independent double-check required for all routes in pediatric patients